DOCUMENT RESUME

ED 066 160 24 JC 720 201

AUTHOR Shea, Thomas; And Others
TITLE Comparison Between Students From Two- and Four-Year Colleges.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
REPORT NO CRP-1944
BUREAU NO BR-5-0812
PUB DATE Jun 72
CONTRACT OEC-3-10-102
NOTE 75p.

EDRS PRICE MF-$0.65 HC Not Available from EDRS.
DESCRIPTORS *College Students; Comparative Analysis; *Junior Colleges; *Personality Assessment; Personality Change; *Student Characteristics; *Transfer Students
IDENTIFIERS *Edwards Personal Preference Schedule

ABSTRACT

This longitudinal study examines and compares characteristics of students from 2- and 4-year colleges. The study selected 23 2- and 4-year colleges from five states; the subjects consisted of the entire entering classes at the 2-year colleges and a sample of 100 entering full-time students at each of the 4-year schools. The instruments were administered four times during the students' academic careers: (1) at the time of entrance; (2) at the end of the second year; (3) at the beginning of the third year including those junior college students transferring to 4-year institutions; and (4) at the end of the 4-year college experience. Some of the conclusions include: (1) personality characteristics, defined by the Edwards Personal Preference Schedule (EPPS), is a major dimension that differentiated between junior and senior college students at the time of college entrance; (2) significant differences were found in EPPS mean performances between junior and senior college men, and also between junior and senior college women; (3) comparing performances of both junior and senior college men, EPPS showed personality changes occurring in the students with the passage of time in college. A more descriptive analysis of the student population, along with statistical tables in comparing EPPS scores of both groups, is included. [Because of marginal reproducibility of original, this document is not available in hard copy.] (RG)

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

BR 5-0812
PA 24

ED 066160

Comparison Between Students from Two- and Four-Year Colleges

FILMED FROM BEST AVAILABLE COPY

Cooperative Research Project 1944

U. S. Office of Education

OEC-3-10-102

Jc 720 201

UNIVERSITY OF CALIF.
LOS ANGELES

OCT 12 1972

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

June 1972

The views and conclusions found in this report are the responsibility of the principal investigators and are not necessarily those of the U. S. Office of Education, the State University of New York, or the New York State Education Department.

Principal Investigators:

Thomas Sleo

Alex Durning

Eldridge Scales

Introduction

At the beginning of the last decade, one of the major issues confronting American higher education was the accommodation of the impending tidal wave of students that would soon inundate existing college and university facilities. Although almost every institution had prepared growth plans to meet this demand, created in part by the coming of age of the post-war baby boom, it was clear that even the most optimistic implementation of these plans would prove to be "too little and too late". New institutions were needed to provide additional higher education resources.

The immediacy of the problem brought forth the proposal of expanding the base of higher education by concentrating mainly, but certainly not exclusively, on the development of two-year colleges. The elimination of the need for residence halls would result in a reduction of expenditures for capital construction and the concentration on the first two years of an academic program would result in a reduced per student cost of current operating expenditures. It was also noted that the transfer patterns of two-year college graduates tended to show that these students did as well as, if not better than, the native four-year college students at the time of graduation.

While the growth of the two-year college movement has been dramatic, the figures cited, like many gross statistics, do not present a picture of the tremendous diversity existing within the movement. Indeed, an attempt to define the purpose and organization of American two-year colleges might well result in a report similar to that submitted by the fabled nine blind men on their observations of an elephant. As Medsker has noted:

> "In some respects, the declared purposes of public (same could be said of most private) two-year institutions are even more diverse than their organizational patterns. The majority of them claim to be comprehensive junior colleges; they stress lower division work for students who expect to transfer to higher institutions and, in addition, offer programs for those who do not plan to transfer. Most of them also stress their role in adult education, in special community services, in guidance, in remedial work for students entering with educational deficiencies, and in general education.[1]

[1] Leland Medsker, The Junior College, Progress and Prospect, McGraw-Hill Book Company, Inc., New York, 1960, page 16.

Five fundamental characteristics of the two-year college, sometimes referred to as junior college or community college, were identified by Fields[2] in his investigation of the community college movement. These are:

1. Democratic - low tuition and other costs, non-selective admission policies, geographically and socially accessible, and popularized education for the largest number of people.
2. Comprehensive - a wide range of students with widely varying abilities, aptitude, and interests; a comprehensive curriculum to meet the broad needs of such students.
3. Community-Centered - locally supported and controlled, local resources utilized for educational purposes; a community service improving the general level of the community.
4. Dedicated to life-long education - educational programs for individuals of all ages and educational need.
5. Adaptable - to individual differences among students, differences in communities, and the changing needs of society.

The diversity and complexity of the two-year colleges may be expected to be reflected in the student body, and the interaction of the colleges

---

[2] Ralph R. Fields, The Community College Movement, McGraw-Hill Book Company, New York, 1962, page 63.

In an initial proposal submitted to the U.S. Office of Education, the study was confined to institutions located within New York State. This constraint was based upon two basic premises: (1) the two-year colleges in the State were diverse enough to provide a microcosm of the two-year college national macrocosm; (2) the logistical problems would be minimized. The latter factor was deemed to be of special significance because of the longitudinal nature of the proposed study.

The proposal was reviewed and it was recommended that the subjects involved be expanded on a geographical basis so as to enable an assessment of regional and national implications. A new proposal was drafted and submitted for approval in 1962. This proposal included the states of Florida, Texas, Kansas and Pennsylvania in addition to New York. Needless to say, the study would be done on a selective sampling basis rather than the universe approach first anticipated. Approval was received and the study was initiated in the spring of 1963.

The instruments selected for inclusion in the four state study were chosen on the basis of the experience gained in the pilot study. For example, in the pilot study both the Allport Vernon Lindsey, Scale of Values and the Edwards Personal Preference Schedule were administered to obtain data relative to the personality characteristics of the students. It was found that the complexity of administering and scoring of the Scale of Values were of such a degree as to cause it to be excluded from the major study. An Attitude Inventory Scale developed by Ducanis and administered in the pilot study was also deleted from the major study.

The study was conducted over a four-year period extending from the fall of 1963 to the spring of 1967. During this period, four testing periods were designated.

Phase I consisted of the administration of the Edwards Personal Preference Schedule, the College Characteristics Index, and a modified State University of New York Student Information Questionnaire. In addition, data relative to scholastic ability of the students were to be collected. This was reported in the form of high school grade point average or the results of a scholastic ability test.

Phase IV was devoted to collecting information concerning the academic success of the participating students. This was to be accomplished by obtaining the cumulative grade point averages, final semester grade point averages, and by an additional administration of the Graduate Record Examination Area Tests.

The fact that the number of participating students would decrease over time as the study progressed was taken into consideration in the design stages of the study. Assumptions of attrition rates were based on historical data as reported in Retention and Withdrawal of College Students by Robert Iffert in 1957. The fact that 100 percent participation of students in the study was also considered idealistic, although it was believed, on the basis of the pilot study, that a significant number would agree to cooperate. This assumption proved false as the study progressed over time. Whether the undercurrent of the present student militancy and unrest or the difficulty of scheduling a mutually acceptable period of

Most data collection work in the Pilot Study was the responsibility of the interviewers selected in each community in which data was collected. A description of the interviewer training program is presented in Appendix A. Appendix B contains a sample of the interviewer manual and other contributions to the dissemination system of the study.

The report is organized in two principal sections. Section I deals with the Pilot Study conducted in 1962; Section II with the Major Study. In addition to the purpose, methodology and findings, comment relative to the several unforeseen problems that deterred the full development of the study are presented.

Before beginning with the main body of the report, the principal investigators would like to acknowledge the patience and understanding of the U. S. Office of Education Cooperative Research staff extended during the conduct of the project.

New York, in addition to expanding facilities at existing institutions, began to establish two-year community colleges of a comprehensive nature as a means of expanding educational opportunity. Although the State University of New York had been created in 1948 to unify public higher education (exclusive of New York City) the community college law was not enacted until five years later.

The law provided that any governmental body, be it a municipal or county agency, could sponsor a college under the supervision of the State University of New York. The sponsor would be responsible for providing revenue for one-half of the capital construction expenditures and for two-thirds of the current operating expenditures. The state would be responsible for the remainder of each type of expenditure. The sponsor had the option of charging one-half of the two-thirds current operating expenditures to the students in the form of tuition. Except for the two-year colleges in New York City, every community college utilized this option.

*Prior to 1962; now tuition is charged at all State University of New York Colleges.

It is interesting to note that, although five are located in areas that would still meet this description, Farmingdale lies athwart Nassau and Suffolk Counties on Long Island, one of the highest per capita income areas in the United States. Although these six institutions did not offer transfer programs per se, approximately 16 percent of the graduates did transfer to four year institutions in 1961. This represented a substantial increase from the figure of 3 percent reported by Williams[1] in 1952 and reflects a change in the aspirations of the students and the scope of program offerings.

The diversity exhibited by the two-year colleges in New York in terms of type of control, finances, programs and purposes, as noted earlier, appeared to make it almost a laboratory for investigating various aspects of the two-year college that would have meaning for all concerned. Unfortunately, this view was not supported. The word diversity unfortunately does not refer to the charge of provinciality, which can now be seen to be quite valid. However, a series of studies of the type originally proposed conducted in several states concurrently under more direct supervision and control would have produced a greater return than did the "shot gun" method utilized.

In any event, while the modified proposal was being renegotiated, an investigation was undertaken that became the pilot study for the main project. The study involved four two-year colleges in New York. These colleges were selected on the basis of geographical location, type of institution, program offerings, and their willingness to cooperate in the conduct of the study. The four-colleges participating in the pilot study were: Erie County Technical Institute, located in Amherst, a suburb of

---

[1] Williams, Paul N., A Study of Graduates of Two-year Post High School Courses (Technical and Agricultural) in New York Who Transferred to Four-Year College Courses. State University of New York at Albany, 1952.

Suffolk, Nassau Valley Community Colleges, located on Long Island, Orange County Community College, located in the Hudson Valley area of New York and Technical Institute at Alfred (Agricultural and Technical College at Alfred) in the Southern Tier area of New York. These two institutions represent urban colleges with a strong technical program, Orange County Community College has a strong transfer program. Cobleskill is one of the completely state-supported colleges.

The ... first year students in these colleges in the fall of 1974 were the subjects of the pilot study. These students participated in the administration of a battery of instruments used to obtain data relative to their socio-economic and personality characteristics, their perceptions of the college environment, their attitude toward college, and personal data such as geographic origin, financial aid and major program.

Two instruments were administered to obtain personality characteristics data: the Allport-Vernon Lindzey Study of Values and the Edwards Personal Preference Inventory. Thirty items from a College Student Attitude Inventory developed by Ducanis and a supplemental Student Information Questionnaire developed in cooperation with the State University of New York Office of Institutional Research were also completed. In attempting to obtain information relative to the students perception of the college environment, Sterns College Characteristics Index was administered to the more than 1,300 first-year students. This attempt did not come to fruition. In one of a series of misfortunes that have seemed to have plagued this project, it was learned that because of printing errors in the CCI booklets, only four of the scales of the index could be meaningfully scored. Thus, the analysis of perception was removed from the pilot study.

The purpose of this analysis is to make a comparison of the mean scores and standard deviations of the scores of the two-year college population on the 15 scales of the Edwards Personal Preference Schedule with those for the college population as reported by Edwards.[2]

The subjects were 1,372 entering full-time students of three public two-year colleges in New York State.* The colleges, as noted, are situated in various geographical locations in the State and offer curricula of both a terminal, technical, and transfer nature. The students were tested at the beginning of their academic year in the fall of 1962.

---

[1] H. A. Murrary, et al. Explorations in Personality, New York, Oxford University Press, 1938.

[2] Allen Edwards, Personal Preference Schedule Manual. New York, Psychological Corporation, 1959

*One college only administered the Allport-Vernon-Lindsey Study of Values, omitting the Edwards Personal Preference Schedule.

The normative group also upon which the comparisons were made consisted of 1,409 college students -- 749 women and 660 men in four-year institutions. The students were only an average group of students on various colleges and universities in the country. Sex differences were not examined in this study. The low proportion of females in the study group and the direction of the apparent differences indicate that the significance of differences would probably not be changed by taking sex differences into account.

There were significant differences ($P < .01$) between mean scores of a two-year college student group and the Edwards normative group of college students on 11 of the 15 scales (Table 1). Five of the differences, those in deference, order, abasement, endurance, and aggression, were higher for the two-year college group. The two-year college group was lower on need achievement, autonomy, affiliation, intraception, dominance, and heterosexuality.

When contrasted with the Edwards college normative group it would seem that the two-year college students had stronger perceived needs to defer, to be orderly, to be subservient, to endure, and yet to be aggressive. From the present data, the total group of community college students is unlike the Edwards normative group.

The means and standard deviations of the junior college group are compared with the means and standard deviations of the Edwards college normative group by means of the test as shown in Table 1. With the exception of four scales, the differences between means is significant at $P < .01$. On the variables of achievement, autonomy, affiliation, intraception, dominance, and heterosexuality, the two-year college group had a lower need than the normative group. The two-year college group yielded mean scores

Scale	Edwards group (N = 1509)		Junior college group (N = 1509)		DI	t value
	M	SD	M	SD		
Achievement	13.20	4.16	14.38	4.36	+	7.42**
Deference	11.26	3.63	11.80	3.71	+	3.41**
Order	11.43	4.63	10.24	4.34	-	7.93**
Exhibition	14.48	3.61	14.34	3.59		1.04
Autonomy	12.34	4.29	13.31	4.53	+	5.91**
Affiliation	14.69	4.18	16.19	4.36	+	9.43**
Intraception	15.64	4.74	16.72	5.01	+	5.93**
Succorance	17.59	4.50	17.63	4.65		.02
Dominance	13.00	4.56	15.63	5.02	+	11.41**
Abasement	17.25	4.56	13.66	5.14	-	19.51**
Nurturance	14.99	4.75	15.22	4.76		1.30
Change	16.28	4.41	16.35	4.88		.40
Endurance	14.80	5.25	12.65	5.25	-	10.80**
Heterosexuality	14.80	6.57	16.01	5.68	+	5.26**
Aggression	13.28	4.48	11.70	4.73	-	9.24**

**Significant at or beyond the .01 level of confidence.

-Junior college group mean less than Edwards group.

+Junior college group mean greater than Edwards group.

The data obtained from the Edwards Personal Preference Schedule was also analyzed for differences within the two-year college groups. This

These findings in the pilot study led to the inclusion of the Edwards in the main study so as to develop a larger number to analyze. When the thirteen hundred students were sub-divided by program the resulting N's were quite small and, although the results were statistically significant, it did not provide a firm base for hypothesis testing.

Allport-Vernon-Lindzey Study of Values

The Allport-Vernon-Lindzey Study of Values was administered to a group of 1,660 entering full-time students at four public two-year colleges in the fall of 1962. The difference in the number of subjects involved in the administration of the Edwards and the Allport instruments is due to the fact that one school did not administer the Edwards.

The Allport-Vernon-Lindzey instrument provides a scale for measuring the relative strength with which a person holds a particular value. The

The direction of the differences seems to indicate that the entering two-year college female student differs from the four-year student in several important respects: the two-year college student seems to hold values more theoretical, economic, political, and religious, while being less aesthetic and social. Such differences seem to fit a general picture of the girl who is concerned with the practical aspects of living, when the profile is viewed as a whole.

While the entering male two-year college student does not differ on each scale as the female does, he differs on four of the six (Table 3): economic, aesthetics, social and religion. He does not differ from the normative group on the theoretical or political scales. It may be inferred that the two-year male college student, much like his female counterpart, is a practical and conforming individual who values what is useful and does not as highly value the beautiful or the harmonious or human relationships but does value religious experience.

Table 2

Allport, Vernon, Lindzey Study of Values
Normative Group (Female)
Compared to a Group of Female Two-Year
College Students*

Scale	Two-year college group (N=782)		Normative group (N=1289)	
	Mean	SD	Mean	SD
Theoretical	38.28	6.00	35.75	7.19
Economic	39.30	5.95	37.87	7.30
Aesthetic	37.17	7.31	42.67	8.34
Social	41.51	6.33	42.03	7.02
Political	39.29	5.56	37.34	6.23
Religious	44.42	7.46	43.81	9.40

*All differences significant ($P < .01$)

Table 3

Allport, Vernon, Lindzey Study of Values
Normative Group (Male)
Compared to a Group of Male Two-Year
College Students

Scale	Two-year college group (N=1078)		Normative group (N=2408)	
	Mean	SD	Mean	SD
Theoretical	44.01	6.17	43.75	7.34
Economic*	44.80	6.77	42.78	7.92
Aesthetic*	32.45	7.05	35.09	8.49
Social*	36.21	6.14	37.09	7.03
Political	42.96	5.84	42.94	6.64
Religious*	39.50	7.77	38.20	9.32

*Differences significant ($P > .01$)

It may well be that the values of the two-year college student are not such as to permit him easy access to the average four-year institution. If, indeed, the two-year college student does have a different value orientation, then it is possible to assume that he will have a more difficult time entering a four-year institution than a two-year institution which may have a congruent value system. It would seem apparent that the two-year college provides a means toward higher education for the student who is less aesthetically or socially oriented since social and aesthetic values are held at a higher level in the four-year institutions.

In this regard, the two-year community college may indeed be fulfilling the role of a transitional "value changing" institution.

While present evidence does not lead to the conclusion that the observed difference in values is a socio-economic one, previous studies, such as Goldsen, et al*, seem to indicate that the observed differences may at least in part be due to such factors. If such is the case, the argument for continuance of the open-door policy and the establishment of numerous two-year institutions (even if they are uneconomical) seems strong.

Supplemental Student Information Questionnaire

The Supplemental Student Information Questionnaire was completed by 1,750 full-time entering students in the late fall of 1962. The regular Student Information Questionnaire was completed by these students as a matter of course. The Questionnaire has been completed by these students in the State University of New York colleges since 1954. Obviously, the questionnaire has undergone change during this period, but the changes have been undertaken with the aim of providing meaningful trend comparisons where possible. It was this form that enabled the Office of Institutional

* Goldsen, R.K. Rosenberg, M., Williams, R. M. and Suchman, E. What College Students Think. D. Van Nostrand Co., Inc. New York, 1960

Because we were interested in learning if the students who planned to transfer within two years to a four-year college were different from those who did not, we decided to include in the study only those students who indicated on the pre-test that they planned to transfer within two years to a four-year college.

The difference between the number of students completing the personality instruments and the number of student information questionnaires may be due in part to the different time periods involved or the ability to match a regular Student Information Questionnaire and a supplemental. In any event, the differences are small and are not believed to affect the findings.

The instrument included items on the most important reasons for the students choice of a particular two-year college and the individual who most influenced this college decision. There were questions concerned with the students living arrangements, while at the college, his attitudes toward the college and the plans he had in the fall of his first year for what he hoped to do following his completion of the two-year program. Descriptive information about the high school he had graduated from and the educational and occupational level of students' parents were also obtained.

In answer to the question: "What was the most important reason for your entering the institution you are now attending?", over 60 percent of the two-year college students replied, "The program of study offered." Only two other categories were checked by more than ten percent of the student group--finances by thirteen percent, and the fact that the college was close to home by eleven percent. A metropolitan two-year college and an agricultural-technical college, both of which offered the Associate

---

*Cooperative Research Grant 1,133 - Factors Affecting Performance of Transfer Students from Two- to Four-Year Colleges.

In Applied Science curriculum, there was nearly three-quarters of their students choosing to attend because of the program of study. In contrast to the two-year college, which offered a broad liberal arts transfer program, less than a third of its students reported that the most important reason for their attending was the program of study, while over a quarter checked "finances" and another 23 percent "close to home". When combined, the three factors which were important in the choice of a two-year college were: the program of study offered, finances, and close to home in that order.

The two-year college student reported that the individuals who most influenced his decision to attend that particular college were his parents. This category, "parents", was checked by over a third of the students as their primary influence. One-fourth felt that the guidance counselor had most influenced them, whereas twenty percent credited friends and other students with having the most to do with this decision. High school teachers and administrators and college representatives do not, in general, seem to have been a very important influence.

Variations in the patterns were observed within the participating institutions. In College A, located in a metropolitan area, the guidance counselor was quite influential. In College D, the influence of the college representative was a significant influence. The negative highlight of this response is that, while high school administrators pride themselves on influencing students to continue their education, this is not the case. Perhaps the high school administrator's influence is indirectly felt and, therefore, not measured by the questions asked.

It may almost be said that when there is a dearth of opportunity in an area, the student will take that opportunity if he in any way wants to

In analyzing the responses to the question of influence by type of high school attended, it was noted that the influence of the guidance counselor was rated more important by students who had graduated from high schools organized on a 9-12 basis. The influence of the guidance counselor was least in high schools of a consolidated nature that were organized on a 7-12 pattern through centralization.

In response to the question phrased - "If you were given the opportunity would be accelerate your college career"? - over 70 percent of all students answered yes. This would tend to agree with the goal oriented nature of the students and their belief in the practical economic value of a college education. At the time of the pilot study, the cyclical swing of interest in the all-year or balanced calendar was on the rise. It would seem that this finding would have meaning for upper level calendar revision.

When the two-year college students were asked the question, "If you had been given the opportunity, would you have started at some other

Related to the previous two questions was an item asking the two-year college student what type of institution he would choose for his own children. Nearly sixty percent would want their children to attend four-year institutions, either public or private. The responses "community junior college" and "junior college and transfer" were selected by only a third of these two-year college students. Thus, by having attended a two-year college, the people become interested in college for their children, so it actually accelerates the desire for college. Therefore, the more two-year colleges established, the greater will be the demand

Half of the students in these institutions indicate that they intend to go on to further education in another college following completion of their program in the two-year institution. Even in the two-year colleges offering only technical programs forty percent anticipate, in the fall of their first year, that they will do further college work. There is a sharp contrast between the responses of men and women in this group to this item. In general, over half of the women students plan to seek employment after their two years of college work, whereas over half of the men plan to go on to further education and only one-quarter plan to seek employment.

An analysis of the responses to the questions dealing with the highest educational level attained by the two-year college student's mother and father shows that 67 percent of the mothers and 60 percent of the fathers had a high school education or more. At the bottom of the scale of educational level, three out of ten parents had not graduated from high school.

There is practically little difference except when we get to the "non-high school" in the data. There seems to be less probability for the non-high school male to send his daughter to college. Women tend more so.

The largest occupational group of the students' fathers was "Craftsmen, skilled labor." This area accounted for nearly 30 percent of the fathers; 18 percent were managers or proprietors and an additional 17 percent professionals or semi-professionals. The fourth largest category was "Unskilled labor" with 12 percent.

Also administered were thirty items from the College Student Attitude Inventory. These items were concerned with the student's attitudes towards the quality of the advice and the level of instruction he had received. The responses to these items showed that the majority of the two-year college students were well-satisfied with the advice and instruction offered at these institutions.

However, although the majority are well satisfied, it is rather startling to find that almost a third of the students were neutral in their response. This could be interpreted to mean that they either don't know whether the advisor is attempting to help them or that they don't know who the advisor is. There is little difference related to sex in terms of the response.

The pilot study provided insights and experience that were utilized in developing the proposal for the four-state study. It reinforced the concept in developing a sample; it was more rational to select a sample of two-year colleges and use the entire entering first year class than to attempt to develop a representative stratified random sample of students by program or by any other single variable. The Allport-Vernon-Linzey Study of Values was not included as part of the main study

The high degree of interest and cooperation of the participating students produced a false optimism for the main study. While it is true that the pilot study involved only entering full-time freshmen, as compared to the longitudinal nature of the main study, it was evident from the beginning of Phase I that the level of participation had declined. The cause of this decline is not known but may be attributed to the growing unrest on the campuses and the growing reluctance of students to be used as subjects.

expansion of two-year college opportunity by the creation of community colleges was an expeditious and expedient way of easing the pressure. This plan had an obvious financial advantage because of the elimination of residence halls. The need for specialized facilities required of upper division programs would also be eliminated. This does not mean to imply that the only reasons for creating two-year college movement were financial. This philosophical and educational reasons have been chronicled by noted educators and the American Association of Junior Colleges since the 1920's. It would be redundant to discuss these advantages at this time. The views of what a college experience is or should be are as numberous as there are groups of people. Yet the fact remains, that for an increasing number of students, it will include attendance at a two-year college. An underlying assumption related to the increased attendance at two-year colleges is that this will, in turn, result in an increasing number of students desirous of transferring to four-year institutions. Thus, a pattern of college attendance referred to by some as 2+2 will emerge as a common pattern on the national scene. This is not only

Sample

The modified proposal submitted to the U.S. Office of Education contained a sample of two-year and four-year institutions located in five states that varied by geographic location and by type of control. The five states chosen for inclusion in the project were New York, Florida, Texas, Kansas and Pennsylvania. In addition to the variations noted above, those states at the start of the study accounted for more than a third of the total two-year college enrollment in the nation.

The nature of control and support of the two-year colleges in New York has been discussed early in the pilot study section of this report. An additional feature of the New York system is the charge-back arrangement

At the time of the study, Texas ranked second to California in the number of public junior colleges and the number of students enrolled. The junior college system in the state is based on the same district as that of the public schools although t e colleges are regarded to be institutions of higher education rather than extensions of the high schools. The state support of the two-year colleges is rather complex and has undergone several changes since 1929 when Texas legalized the colleges and provided that they could be maintained by separate districts. Thus, although locally organized, the colleges do receive some state support.

On Kansas, the junior colleges are also organized along local district lines, but the institutions are completely supported by the local district.

The Pennsylvania system was originally scheduled for inclusion in the project because of its rather unique arrangement for two-year colleges; namely, the Commonwealth Colleges, which, in reality, are two-year extensions of Pennsylvania State University. In addition, its geographic proximity

A similar procedure was followed in the three other states with the two-year colleges being personally visited in an effort to insure maximum participation and cooperation. During those visits, the four-year colleges were identified and subsequently visited. In Florida the two-year colleges agreeing to participate were Gulf Coast Junior College, in the panhandle region, Central Florida Junior College, and the Junior College of Broward County. The four-year colleges agreeing to participate were the University of Florida and Florida State University. In addition, the upper division and graduate college, Florida Atlantic, was also included in the project.

The three two-year colleges in Texas that were invited and agreed to participate were Lee College, San Antonio College and Bay City College. The four-year colleges were the University of Texas and Texas Agricultural and Military College.

The procedures anticipated were to administer a battery of instruments and to collect additional academic and scholastic aptitude data in varying combinations at four times during the student's academic career. Phase I would be conducted at the time of entrance to college; Phase II at the end of the second year, i.e., graduation from the two-year college; Phase III would be at the time of entrance to a four-year institution. Although it was known that some students did not transfer directly from the two-year college to a four-year institution, for logistical purposes, Phase III would be administered at the beginning of the third year. Phase IV would come at the end of the four-year academic experience, the spring of 1967.

The instruments were to be administered and the supplemental data obtained from the entire entering class at the two-year colleges and to a sample of 100 entering full-time students at the four-year colleges. The sampling was to be as representative as possible but the actual selection was left up to the participating colleges.

Phase IV was devoted to collecting information relative to the academic success of the participating students. This was to be accomplished by obtaining the cumulative grade point averages, final semester grade point averages, and by a second administration of the Graduate Record Examination Area Tests.

2. What changes, if any, occur in the personalities, aspirations motivations, and attitudes of students during the two-years the students spend in these institutions?

3. What is the academic experience of transfer students as they leave two-year college and transfer into the senior college? How do their experiences compare with those of "native" students who continue in the same senior college?

4. What are the institutional environments of the colleges? Are the differences in the environments of the two-year college from which the student transferred and the four-year college to which he transferred as perceived by the students?

Dorman[1] studied the historical development of two-year colleges in New York State. He examined the organization, fiscal operation, enrollment, program and faculty of two-year colleges but this structural study was not concerned with the impact of a system of two-year colleges upon higher education.

Williams, under the supervision of Cowen, studied the graduates of two-year post-high school courses (technical and agricultural) in New York State who transfer to four-year college courses.[2] Williams' study showed that 7 percent of the graduates transfer to four-year colleges. The outstanding problem to the transfer student was the difficulty in obtaining credit for work accomplished in the two-year institution. Generally, as reported in this study, transfer students were successful in the four-year college.

---

[1]Dorman, Kenneth T., The Two-Year College Movement in New York State. New York State Education Department, Publications Bureau. Albany, New York, June 1968

[2]Williams, Paul N. A Study of Two Years Post High School Courses (Technical and Agricultural) in New York State Who Transfer to Four Year College Courses. State University of New York. Albany, New York

That the scholastic success of junior college transfer students in senior colleges is comparable to transfer students from four-year colleges has been documented by Grace Bird.[4] A careful review of previous studies and reference to her own studies of the performance of more than 2,500 transfer students from junior colleges to the University of California led Bird to the conclusion that junior college transfer students make scholastic records approximately the same as those made by transfer students from four-year colleges and by native students and that the scholastic standing of junior college years is retained after transfer. She noted further that variations, sometimes quite wide, were found in the findings in different senior institutions and also between junior colleges represented in the same senior institution.

---

[3] Gleazer, Edmund J., Jr. (Ed.) "From the Executive Director's Desk," Junior College Journal. 29:109-113. October 1968

[4] Henry, Nelson B. (Ed.) The Public Junior College. The Fifty-fifth Yearbook of the National Society for the Study of Education, Part I. Chicago: University of Chicago Press. Page 85. 1956

The structure of related research indicates a need for a study of the two-year college student--his development, transfer, and subsequent success of failure, as well as a study of the institutional environment of the two-year college from which he transfers and the environment in the four-year institution to which he must adjust. The study proposed to examine student characteristics, college environment and the interaction of factors which enhance or deter the student's chance for success.

---

[2] Stickler, W. Hugh. A Study of Florida Junior College Transfer Students in the Florida State University, Fall Semester, 1957-58. Unpublished study prepared by the Office of Institutional Research and Service. The Florida State University. March 1958.

[6] Martorana, S.V. and Williams, L.L. "Academic Success of Junior College Transfers at the State College of Washington". Junior College Journal. Vol. XXIV, pp. 402-415, March 1954.

[7] Medsker, Leland L. The Junior College: Progress and Prospect. McGraw-Hill Book Company, Inc. 1960. pp. 119-140.

Within this limitation, data were collected for approximately 8,500 entering students, 7,200 two-year college students and 1,300 four-year colleges. The figure of approximately 1,300 four-year students might be confusing for the original sample design called for 100 students from each four-year college. This was a result of scheduling problems. For example, rather than attempting to select out students from certain classes, an entire class or section would complete the forms, with the sample students to be withdrawn at a later time. In some instances, the entire group of respondents were analyzed. A case in point is the treatment of the Edwards Personal Preference Schedule.

The First Year: Entering College

Mean, standard deviation, and mean difference on each of the fifteen scales, computed from entering student responses at the twenty institutions, are compared in Table 1.

Four-year college students scored significantly higher on seven of the fifteen scales than did their junior college counterparts. Mean

Table 1

Comparison of EIPS Scores by Two- and Four-Year Colleges

Entering Freshmen

	Two-Year Colleges Entering Freshmen (N=1372)		Four-Year Colleges Entering Freshmen (N=1372)		Differences Between Means
	(Mean)	(S.D.)	(Mean)	(S.D.)	
	12.67	3.79	13.80	4.09	1.13*
	10.76	3.94	11.20	3.45	.39*
	10.85	4.33	10.06	4.37	.21
	12.00	3.70	15.29	3.80	3.29*
	13.36	4.27	13.14	4.31	.22
	15.19	4.11	15.62	4.09	.43*
	13.13	4.56	14.46	4.77	1.33*
	12.06	4.35	12.35	4.70	.29
	13.02	4.11	13.68	4.79	.66*
	15.50	4.39	15.89	4.96	.39*
	14.40	4.56	15.56	4.64	.16
	16.66	4.27	16.69	4.74	.03
	13.16	5.33	12.83	5.49	.78*
	15.29	5.23	15.88	5.90	.59*
	12.53	4.62	14.87	4.35	2.34*

*Significant at the 5 percent significance level.

The mean differences significantly favoring the four-year college student appear to reflect a high sense of achievement and personal high goals with idealistic overtones. Although personal self-centeredness is relatively strong, there is a strong leaning to group membership and activity. Emphasis is placed on leading, directing, or supervising others and not on being led. However, coupled with this felt need for leadership is a willingness to accept the consequences of one's actions or blame. There is a strong tendency not to accept willingly those actions, attitudes, suggestions, policies, or ideas which are not consistent

Tables 2 and 3 show comparisons of entering two- and four-year college men and junior and senior college women respectively.

Comparison of two- and four-year college men, as shown in Table 2, revealed mean differences on five scales that significantly (at or beyond the 1% level) favored two-year college men. The scales were: Deference, Affiliation; Intraception; Dominance; and Endurance. Senior college men earned scores significantly higher (at or beyond the 1% level) than junior college men on but three scales: Achievement, Exhibition, and Abasement.

A descriptive interpretation of significant differences favoring two-year college men would seem to distinguish them, from four-year college men, as being more conforming, conventional, and less venturesome. They are group oriented but yet are mindful and understanding of others. They feel the importance of being regarded as a leader. Their strong feelings of "stick-to-itness" stands them in good stead.

Table 2

Comparison of First- and Second-Year EPPS

Scores by Four-Year College Students

Scale	First-Year EPPS Scores (Freshmen) (N=1376)		Second-Year EPPS Scores (Sophomores) (N=262)		Difference Between Means
	Mean	S. D.	Mean	S. D.	
	13.80	4.02	13.21	4.26	.59
	11.20	3.74	11.20	3.88	0
	10.10	4.32	10.00	4.19	.06
	13.03	3.70	14.47	3.67	.92*
	13.12	4.39	12.68	4.59	.46
	15.80	3.93	15.71	3.96	.09
	13.40	4.37	16.88	4.92	2.42*
	12.35	4.32	11.75	4.68	.60
	13.20	4.70	14.44	4.75	.76
	13.09	4.42	14.84	4.55	1.05*
	14.53	4.46	15.00	4.47	.47
	16.69	4.79	16.57	5.03	.12
	13.46	4.70	13.67	5.54	.21
	15.48	5.07	17.18	5.59	1.30*
	14.93	4.33	12.30	4.56	2.57*

* Significant at the .01 level.

Mean scores of four-year college women were found to be significantly higher (at one beyond the 1% level) than two-year college women on the scales of Exhibition, Autonomy, Succorance, and Dominance. They more than their two-year college sisters felt a need to be looked upon as a leader or as one of high status and to make independently their own decisions. Nevertheless, they felt a need to receive help and/or attention from others. It would seem that senior women felt those needs which would make their academic relationship to men a competitive one rather than a "womanly" or complementary one.

The End of the Second College Year

It is axiomatic that education makes for change. What changes are found in matriculating junior college and senior college students after the first two years of college attendance? Table 4 compares junior college entering and end-of-second year mean scores on each of the fifteen scales.

Table 3

Comparison of EPPS Scores by Two- and Four-Year College

Entering Freshmen Women

	Two-Year College Freshmen Women (N=[illegible])		Four-Year College Freshmen Women N=540)		Differences Between Mean
	Mean	S. D.	Mean	S. D.	
[illegible]	[illegible]	[illegible]	12.41	4.07	.62
[illegible]	[illegible]	[illegible]	11.56	3.45	.23
[illegible]	[illegible]	[illegible]	10.12	4.42	.22
[illegible]	[illegible]	[illegible]	15.85	3.93	1.50*
[illegible]	[illegible]	[illegible]	11.86	3.97	.82*
[illegible]	[illegible]	[illegible]	16.45	4.07	.07
[illegible]	[illegible]	[illegible]	17.16	4.46	0
[illegible]	[illegible]	[illegible]	13.18	4.57	.29*
[illegible]	[illegible]	[illegible]	12.55	4.72	.74*
[illegible]	[illegible]	[illegible]	17.54	4.44	0
[illegible]	[illegible]	[illegible]	17.05	4.44	.05
[illegible]	[illegible]	[illegible]	17.33	4.96	.25
[illegible]	[illegible]	[illegible]	12.62	5.41	.04
[illegible]	[illegible]	[illegible]	13.94	5.97	.27
[illegible]	[illegible]	[illegible]	10.59	4.30	.82

These junior college students, as a group, at the end of the second year are characterized by strong motives toward achievement and receptive to assistance from others, out-going behavior, concern for and understanding of other's feelings, increasingly less conforming with much stronger tendency to disagree with and attack points of view not concurrent with their own. Greater importance is placed upon being a leader and a persuader and influencer of others, but not without assumption of guilt and blame when justifiable. These motives have overtures of stepped-up spirited social activity. Interestingly enough, there is a decided decrease in the felt need for being venturesome and in new things or people. The old, the trusted, the true; that which has worked, might be increasingly preferred to the new.

Table 4

Comparison of First- and Second-Year EPPS

Scores by Two-Year College Students

Scale	First-Year EPPS Performance (Freshmen) (N=1202)		Second-Year EPPS Performance (Sophomores) (N=1309)		Difference Between Means
	Mean	S. D.	Mean	S. D.	
[illegible]	[illegible]	[illegible]	15.38	3.84	2.71*
[illegible]	[illegible]	[illegible]	11.80	3.57	.25
[illegible]	[illegible]	[illegible]	10.49	4.37	.22
[illegible]	[illegible]	[illegible]	11.40	3.37	2.40*
[illegible]	[illegible]	[illegible]	13.36	4.08	0
[illegible]	[illegible]	[illegible]	15.22	3.75	.03
[illegible]	[illegible]	[illegible]	16.18	4.72	.39*
[illegible]	[illegible]	[illegible]	12.42	4.67	.36*
[illegible]	[illegible]	[illegible]	13.40	4.72	.35*
[illegible]	[illegible]	[illegible]	15.56	4.41	.36*
[illegible]	[illegible]	[illegible]	15.33	4.16	.07
[illegible]	[illegible]	[illegible]	16.04	4.73	.62*
[illegible]	[illegible]	[illegible]	13.38	4.82	.22
[illegible]	[illegible]	[illegible]	10.40	5.84	1.11*
[illegible]	[illegible]	[illegible]	14.07	4.35	2.56*

[illegible] Significant at the beyond the .05 level.

Table 5

Comparisons of ERIS Scores by Two- and Four-Year College

Entering Freshmen Men

	Four-Year College Freshmen Men (N=824)		Differences Between Mean
	Mean	S.D.	
	15.00	4.13	1.45*
	10.88	3.55	.81*
	10.01	4.38	.19
	14.79	3.67	5.12*
	14.38	4.60	.32
	14.48	4.12	3.21*
	12.61	5.30	2.03*
	11.62	4.82	.40
	14.60	4.86	3.66*
	14.44	5.41	.74*
	14.22	4.81	.14
	16.13	4.54	.40
	13.11	5.57	.54*
	17.61	5.84	.49
	13.13	4.38	.53

*Significant at or beyond the 1% level.

Conclusions

Personality characteristics as defined by EPPS is a major dimension that differentiated between these junior and senior college student groups at the time of college entrance.

(a) Upon entrance to college junior college students earned statistically significant higher mean scores than senior college students on only three scales: Deference, Intraception, and Endurance.

(b) Differences between the groups of junior and senior college students were significantly higher at the .01 and or better

4. Comparison of entering and end-of-second-year EPPS men performances of the two groups of junior and senior college students showed a pattern of significant mean gains and losses which dramatized the personality changes occurring in the students with the passage of time in college.

(a) The pattern of junior college student performance was found to be one of numerical gain on all scales except three. Statistically significant mean gains were found on eight

In the discussion of the second phase - administration, it was obvious that the attrition of subjects was devastating to the project. A drop from approximately 8,500 students to approximately 1,500. It should also be noted that in Phase I, because of internal administrative difficulties, the students in the study did not necessarily participate in the completion of all instruments, nor were the data from other sources available on an "across the board" basis.

Residence

Not surprisingly, the question of residence provided clear differentiation between the two-year college freshmen and the four-year student, with more than 90% of the two-year students residing at home, while less than of the four-year students did so.

Expected Earnings

While most of the students expected to earn less than $100 during the school year, it would seem that the two-year students had a somewhat higher expectation than the four-year students. For example, 10% of the

Residence

The difference between the two-year student and the four-year student is apparent here, where less than 10% of the four-year students expect to reside at home, while about 90% of the two-year students intend to do so.

Expected Earnings

The earnings expectations of the students in the two- and four-year institutions appear to differ slightly, with the two-year students having somewhat higher expectations. The largest number of four-year students (both male and female) tend to expect less than $100 in earnings during the school years.

New York - 4 Years

Marital Status and Age

Almost all of the students included in the sample of four-year colleges were unmarried at the time of their entrance. About 90% were 18 or under in this four-year sample.

Entrance Classification

Almost all of the four-year people were first-time freshmen at entrance.

Acceleration

None of the four-year students indicated they did not wish to accelerate their college career.

Educational Level of Parents

Over half of the fathers of the students had level 4 or 5 education.

Occupation of Father

There seem to be some sex differences as well as differences between the four-year institutions in the father's occupation.

Plans After College

The greatest percentage of the New York four-year students planned to continue their education upon completion of college.

New York - 2 Years

Age

The two-year college male student appeared to be slightly older than his four-year counterpart, whereas the female student did not.

Education of Father

Less than 20% of the fathers of the students in the two-year institutions had better than a (5), whereas more than 30% had (3) or less.

Occupation of Father

The greatest number of fathers hold jobs in the (1) and (3) categories.

Plans After College

The most frequent response for males in this instance was (1) and (2). Females responded (1) and (9), with 16% of the females in one institution responding (6).

Data were obtained from 1,793 students transferring to the four-year colleges of the University (excluding the University Center at Buffalo). Of this number, 52 percent had previously attended a two-year college. Since approximately one-half of the students transferring to the four-year colleges were from other than two-year colleges, and similar data were available it was decided to compare the two groups.

Two-thirds of the two-year transfers originated from the community colleges, which is not surprising because of the number of these colleges. (What is more noteworthy is the fact that almost one out of five was from the agricultural and technical colleges, which offer the A.A.S. only.)

Reasons for Selected Institution

Two-year college students most frequently indicate finances and proximity to their home as reasons for choosing the type of institution they did, whereas four-year students most often site the reputation of the institution and the program of study offered as their reason for choosing the institution they are attending.

Type of School Student Would Have Child to Attend

There is a clear pattern of response in the four-year institution which indicates that the student in the four-year school would pick the same sort of institution for his children. The two-year college student is somewhat ambivalent concerning this point.

Summary of Conclusions

The entering students at the two-year colleges had stronger perceived needs to defer, to be orderly, to be subservient, to endure and to be aggressive than did the four-year college students in the Edwards Normative group.

The greater need for deference, order and abasement would seem to indicate that the two-year college group was a more subdued and subservient group, anxious to please and to have things "go right". The corresponding low need for autonomy and dominance also fit this theme.

63

77

Thornton, James W., Jr., The Community Junior College, John Wiley and Sons, Inc., New York, 1960

Williams, Paul T., [illegible] Technical and Vocational) [illegible] Junior College Courses, [illegible] New York, 1960

Wolfe, Dael, America's Resources of Specialized Talent, Harper Bros., New York, 1954